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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Nobuko Yamamoto

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EXAMINER

SHERR, CRISTINA O

ART UNIT

PAPER NUMBER

3685

MAIL DATE

DELIVERY MODE

10/06/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 09/942,003	Applicant(s) YAMAMOTO ET AL.	
	Examiner CRISTINA OWEN SHERR	Art Unit 3685	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 July 1008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,7-11,17-21,24-28,31-37,39-42,45-51,53,57,58 and 60-66 is/are pending in the application.
- 4a) Of the above claim(s) 1,7-11,17-21,24,26,37,40,51,53,58 and 60-66 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 25,27,28,31-36,39,41,42 and 45-50 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>7/17/08,08/11/08</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This communication is in response to Applicant's amendment filed July 8, 2008. Claims 25 and 39 are currently amended. Claims 1, 7-11, 17-21, 24-28, 31-37, 39-42, 45-51, 53, 57-58, and 60-66 are currently pending in this case. Claims 25, 27-28, 31-36, 39, 41-42 and 45-50 are currently under examination.

Information Disclosure Statement

2. The information disclosure statements (IDS) submitted on July 17, 2008 and August 11, 2008 are in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statements are being considered by the examiner.

Response to Arguments

3. Applicant's arguments filed July 8, 2008 have been fully considered but they are not persuasive.

4. Applicant argues, regarding claims 25 and 39, as currently amended, that nothing in the cited references discloses, teaches or suggests, "wherein each of the plurality of different DNA probes is indicative of a person's MHC genes or a person's SNPs by whether or not each of the plurality of different DNA probes is reactive or non reactive to that person's DNA."

5. Examiner respectfully disagrees and directs attention to the fact as well as takes Official Notice that both MHC genes and SNP genes as well as the reagents that identify them are old and well-known in the art. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include, inter alia, reagents to both or either SN_ genes or MHC genes among the probes used in the

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instant application. We direct attention to, for example "An historical introduction to the Mhc" (Peter Hjelmstron, 1996 at

<http://depts.washington.edu/rhwlab/resMat/dq/history.html>) which discloses research in the area of MHC genes as far back as 1916, and to SNP Fact Sheet (Human Genome Project Information at

http://www.ornl.gov/sci/techresources/Human_Genome/faq/snps.shtml) referencing SNP gene research from 1998 and earlier.

Remarks

6. With respect to independent claims 25 and 39, as currently amended, note that a wherein clause that merely states the result of the limitations in the claim adds nothing to the patentability or substance of the claim. (*Texas Instruments Inc. v. International Trade Commission* 26, USPQ2d 1010 (Fed. Cir. 1993); *Griffin v. Bertina*, 62 USPQ2d 1431 (Fed. Cir. 2002); *Amazon.com Inc. v. Barnesandnoble.com Inc.*, 57 USPQ2d 1747 (CAFC 2001). In this case, the arrangement of the DNA probes and the specific type of DNA reagent in each probe, in the current version of the claims is merely incidental, and does not change the method or system of authentication in a manner that makes it further distinguishable from the prior art.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 25, 27-28, 31-36, 39, 41-42 and 45-50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Black (US 6,307,956B1) in view of Yguerabide et al (US 6,586,193) further in view of either Schmidt et al (US 7,094,531) or Lockhart et al (US 6,344,316).

9. Black discloses an identity verification system, method, and apparatus that employ biometric technology for identity verification (e.g. col 4 ln 18-28). The biometric properties employed include, but are not limited to DNA (e.g. col 4 ln 30-40). Said system, method and apparatus make a "match" or "no match" decision and issues and certify or do not certify the user. (e.g. col 4 ln 55-65). Further, Black discloses recording and storing the layout information as either digital or magnetic information (e.g. col 4 ln 20-30). Further, Black discloses the use of cell capture/analysis sensors for use in identifying DNA (e.g. col 7 ln 50-60).

10. Although Black does not specifically reference recording the DNA layout information by arranging probe layouts in row and column directions, it would be obvious to one of ordinary skill in the art that array of immobilized single-stranded DNA (ssDNA) could be arrayed as rows and columns or any other logical manner (e.g. col 25 ln 25-35).

11. Further, although the references do not specifically disclose wherein each of the plurality of different DNA probes is indicative of a person's MHC genes or a person's SNPs by whether or not each of the plurality of different DNA probes is reactive or non reactive to that person's DNA, examiner takes Official Notice that both MHC genes and SNP genes as well as the reagents that identify them are old and well-known in the art.

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Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include, *inter alia*, reagents to both or either SN_ genes or MHC genes among the probes used in the instant application. We direct attention to, for example “An historical introduction to the Mhc” (Peter Hjelmstron, 1996 at <http://depts.washington.edu/rhwlab/resMat/dq/history.html>) which discloses research in the area of MHC genes as far back as 1916, and to SNP Fact Sheet (Human Genome Project Information at http://www.ornl.gov/sci/techresources/Human_Genome/faq/snps.shtml) referencing SNP gene research from 1998 and earlier.

12. Further, Yguerabide does disclose reacting a DNA array in which a plurality of DNA probes corresponding to plural kinds of genes are arranged in a predetermined order, with a gene obtained from a given person (e.g. col 11 ln 30-50). Such an arrangement can obviously be used in conjunction or in combination with Black by one of ordinary skill in the art in order to issue an authentication certificate using, *inter alia*, a hybridization pattern.

13. Neither Black nor Yguerabide disclose attaching the reacted DNA array to a base of the authentication certificate. However, both Schmidt (at, e.g. col 3 ln 21-31) and Lockhart (at, e.g., col 107 ln 4-12) provide such a disclosure. Such an arrangement can obviously be used in conjunction or in combination with Black and Yguerabide by one of ordinary skill in the art in order to issue a unique authentication certificate.

14. Examiner’s note: Examiner has cited particular columns and line numbers in the references as applied to the claims above for the convenience of the applicant.

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Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may be applied as well. It is respectfully requested from the applicant, in preparing the responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention as well as the context of the passage as taught by the prior art or disclosed by the examiner.

Conclusion

15. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

16. A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to CRISTINA OWEN SHERR whose telephone number is

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(571)272-6711. The examiner can normally be reached on 8:30-5:00 Monday through Friday.

18. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Calvin L. Hewitt, II can be reached on (571)272-6709. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

19. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Cristina Owen Sherr
Patent Examiner, AU 3685

/Calvin L Hewitt II/

Supervisory Patent Examiner, Art Unit 3685